# Dark field Z-scan microscopic configuration for nonlinear optical measurements: Numerical study



| | |
|---|---|
| Titre | Dark field Z-scan microscopic configuration for nonlinear optical measurements: Numerical study |
| Type de publication | Article de revue |
| Auteur | Chis, Mihaela [1], Wang, Hongzhen [2], Cassagne, Christophe [3], Ciret, Charles [4], Boudebs, Georges [5] |
| Editeur | World Scientific Publishing |
| Type | Article scientifique dans une revue à comité de lecture |
| Année | 2019 |
| Date | May-12-2018 |
| Numéro | 04 |
| Volume | 27 |
| Titre de la revue | Journal of Nonlinear Optical Physics & Materials |
| ISSN | 0218-8635 |
| Résumé en anglais | This study deals with numerical simulations to optimize the parameters of the Dark Filed Z-scan (DFZ-scan) in a microscopic configuration for third-order nonlinear (NL) refraction measurements into thin films. The method allows dynamic, transparent, nonlinear phase shifts to be clearly visible. The simulations of such images are obtained for very low-induced refractive indices. Darkfield illumination requires blocking out of the central light which ordinarily passes through and around (surrounding) the NL specimen. A table to approximate circular aperture stop size versus magnification will be given depending on the focusing lens into the tested material. |
| URL de la notice | http://okina.univ-angers.fr/publications/ua19174 [6] |
| DOI | 10.1142/S0218863518500376 [7] |
| Titre abrégé | J. Nonlinear Optic. Phys. Mat. |

**Liens**

[1] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=34953
[2] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=24253
[3] http://okina.univ-angers.fr/c.cassagne/publications
[4] http://okina.univ-angers.fr/publications?f%5Bauthor%5D=29981
[5] http://okina.univ-angers.fr/g.bou/publications
[6] http://okina.univ-angers.fr/publications/ua19174
[7] http://dx.doi.org/10.1142/S0218863518500376